STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

In re petition of Global NAPs, Inc. for Arbitration of an Interconnection Agreement with Illinois Bell Telephone Company d/b/a Ameritech Illinois pursuant to Section 252 of the Telecommunications Act of 1996	))))))	Docket No. 01-0786

Direct Testimony

of

ROBERT J. FOX

on behalf of

Global NAPS, Inc.

December 28, 2001

TABLE OF CONTENTS

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DIRECT TESTIMONY OF ROBERT J. FOX
ON BEHALF OF GLOBAL NAPS, INC.

I. INTRODUCTION

Qualifications

Q. Please state your name, position and business address.

A. I am Robert J. Fox, Vice President of Industry Relations for Global NAPs, Inc. (hereinafter "Global NAPs"), where I have been employed since July 27, 1998. My business address is 10 Merrymount Road, Quincy, MA 02169.

I have an undergraduate degree from Hofstra University, and a Masters in Business Administration from the New York Institute of Technology. I have also completed numerous technical and management courses, including NYNEX's Alpha Program, AT&T's Technical and Sales Training, and NYNEX's Technical and Sales Training course.

As Vice President of Industry Relations, I focus on the operations, or network building side, of Global NAPs' business. A major part of my job consists of contacting representatives of various Incumbent Local Exchange Carriers (ILECs) regarding interconnection methods, new trunk requests, and other provisioning of new facilities needed to build Global NAPs' network and expand its services.

Prior to joining Global NAPs I was employed by Bell Atlantic, where I was the account manager for several other Competitive Local Exchange Carriers ("CLECs") including AT&T, MCI, and Brooks Fiber. I have been employed in the Telecommunications Industry since 1983.

Q. Have you previously testified before the Illinois Commerce Commission ("ICC")?

A. No, I have not previously testified before the ICC.

Assignment

Q. On whose behalf is this testimony being offered?

A. This testimony is offered on behalf of Global NAPs, Inc.

Q. What is the purpose of this testimony?

A. This testimony discusses the technical aspects of the proposed terms of interconnection between Global NAPs and Illinois Bell Telephone Company d/b/a Ameritech Illinois ("Ameritech"), and the policy and business implications of Global NAPs' and Ameritech's positions on interconnection. Another witness testifying on Global NAPs' behalf, Scott Lundquist, will address economic and policy issues related to Global NAPs' proposal. A third Global NAPs witness, William Rooney, will offer testimony addressing issues raised by the business terms in Ameritech's Template Agreement.

Summary of Testimony

Q. Please briefly summarize your testimony.

A. I will explain how Global NAPs' single Point of Interconnection ("POI") proposal is both technically feasible, and commonly accepted by other ILECs. I will also explain how Global NAPs' proposed interconnection terms will not lead to any switching capacity or network degradation problems. In addition, I will explain how Global NAPs' proposed LATA-wide local calling and virtual NXX do not present any technical feasibility issues for Ameritech. Each of these points is developed in more detail below. Finally, I will discuss the unreasonable nature of the terms by which Ameritech proposes to provide dark fiber under its Template Agreement.

II. TECHNICAL FEASIBILITY OF SINGLE POINT OF INTERCONNECTION

Q. Please describe Global NAPs' proposal to establish a single POI with Ameritech.

A. Global NAPs proposes that the two parties establish a single, LATA-wide, fiber-optic-based, high-capacity POI at which they will exchange traffic in both directions. Global NAPs would collect and deliver its traffic bound for Ameritech and send that traffic to the POI. Global NAPs understands it has an obligation to deliver

traffic destined for Ameritech's customers to Ameritech and that Global NAPs must deliver that traffic to a reasonable POI. Global NAPs believes that Ameritech is held to the same obligation. Each party would be responsible for arranging facilities on its side of the POI in an appropriate and efficient manner. In sum, all that Global NAPs is seeking from the ICC is a clear statement that both parties should be obligated to aggregate and deliver all traffic from their side of the POI.

I should also note that Global NAPs is not suggesting that the parties be barred from voluntarily establishing additional POIs if they both agree that doing so would be convenient. Global NAPs ***is*** suggesting that Ameritech be barred from ***requiring*** Global NAPs to interconnect at multiple points.

Q. Why does Global NAPs seek a single POI with Ameritech?

A. Global NAPs should be allowed to design its network in the most efficient and economic way possible. This means that it should not be bound by the legacy ILEC network designs. Those networks, while perhaps appropriate for a monopoly environment are not efficient — nor do they permit flexible service and pricing options. Allowing Global NAPs to route its traffic though a single POI will, ultimately, give customers more choices and options in both services and prices. At the same time, Ameritech is, of course, able to introduce new prices and services to compete with the new carriers and is constantly upgrading and redesigning its own network as technology evolves.

Q. Is it technically feasible for Ameritech to interconnect with Global NAPs via a single POI in the manner that Global NAPs is proposing?

A. Yes. In fact, a single POI presents no technical challenges. This type of interconnection is the *only* method that Global NAPs currently deploys in both BellSouth and Verizon territories.

Q. If Ameritech is willing to provision this service, what is the issue?

A. Ameritech may be willing to provision this service—but only on prohibitive terms. My counsel advises that there are continuing negotiations on this issue.

Q. What charges does Ameritech intend to levy on Global NAPs if it interconnects at a single point?

A. It is impossible for me to determine the total charges given the pendency of continued negotiations. At this point in time, Ameritech will allow Global NAPs to physically interconnect as it desires, but will impose upon Global NAPs Ameritech’s transport fees for moving traffic around on Ameritech’s network.

Q. If Ameritech is willing to allow for interconnection as desired, please explain Global NAPs’ objection.

A. The charges Ameritech wishes to assess for such interconnection remove any efficiencies gained by a modern network. Global NAPs serves customers over a wide area using a centralized switch. This recognizes the lower cost of transport and the large up-front cost of multiple switch deployment. In contrast, Ameritech has several tandems. If Global NAPs is compelled to match Ameritech's network – by deployment or legacy cost shifts – Global NAPs has no hope of competing with existing Ameritech price structures. In other words, Ameritech is trying to force Global NAPs to either mimic its legacy network architecture or, alternatively, pay Ameritech for transport to affect the same result. Either way, the efficiencies of a modern network are eliminated, making it virtually impossible for Global NAPs to realize a positive return on its planned investment in Illinois' telecommunications infrastructure.

Q. Does the cost construct that Ameritech is trying to impose on Global NAPs affect Global NAPs' ability to serve Illinois customers?

A. Yes. Global NAPs takes into consideration its return on investment when it chooses where to make investments. If the cost of operating in Illinois is too high, the result may be that Illinois may realize the benefits of competition later than other states.

III. INTERCONNECTION WITH GLOBAL NAPS WILL NOT LEAD TO ANY SWITCHING CAPACITY PROBLEMS

Q. Ameritech has suggested that interconnection with Global NAPs may result in tandem switching degradation and exhaust because there is only a finite amount of trunking and/or traffic volume that a tandem switch can handle before it begins to degrade the Telco's network and results in impaired service quality to all Telco customers. In your opinion, would Global NAPs's proposed interconnection with Ameritech result in switching or network degradation that could impair service quality?

A. No.

Q. Can you please explain why you believe that interconnection with Global NAPs will not result in any capacity or network degradation problems for Ameritech?

A. Local networks, both switching and trunking, have long been designed to accommodate projected growth over substantial periods of time. Global NAPs' affiliates have successfully operated highly reliable facilities-based networks throughout Verizon and BellSouth territories utilizing a single point of interconnection per LATA for the exchange of traffic. Indeed, this form of interconnection is now a tariffed offering by Verizon. Moreover, Global NAPs' single point of interconnection request is simple and allows parties to reliably

predict and provision trunking as necessary to meet demand. Global NAPs will work with Ameritech, as it has with Verizon and BellSouth, according to industry standard network engineering principles, to timely forecast traffic quantities, thereby minimizing any potential for degradation of network operations.

Ameritech should have no anxiety about Global NAPs' traffic causing tandem exhaust. This is a situation where the growth in traffic exceeds the tandem switch's capacity. Several options are available to prevent tandem exhaust. First, Ameritech always has the option of direct trunking from its end offices in order to bypass the tandem switch. Second, it can expand the port capacity on the tandem switch to increase capacity. This option of incremental additions to switch capacity may not be available depending on the tandem in question. Finally, it can replace the tandem switch or add another where traffic requires. Moreover, if required to provide single point of interconnection per LATA, Ameritech will have the incentive to deploy equipment at least as, if not more efficient than that deployed by Global NAPs, which, as I understand it, was the one of the goals of the Telecommunications Act in the first place.

Regardless of how Ameritech determines to respond to potential tandem exhaust situations two things are clear: (1) it is entirely within Ameritech's ability to remedy any exhaust situation and (2) it is Ameritech's duty to remedy this situation for wholesale customers like Global NAPs—just as it would do for its own retail customers.

Q. In your opinion, is this matter relevant to the underlying issues in dispute in this arbitration?

A. No. This issue is a red herring and absent any direct proof by Ameritech that Global NAPs traffic will cause exhaustion of facilities or degradation of service, it should not be an issue in this case.

IV. THE OFFERING OF LATA-WIDE LOCAL CALLING AREA BENEFITS ILLINOIS' CONSUMERS

Q. Please explain how Global NAPs' proposed plan to offer LATA-wide local calling capabilities will benefit Illinois' consumers.

A. LATA-wide local calling offerings are beneficial because they allow Global NAPs to offer local calling throughout a LATA without having to install multiple POIs in every local calling area. Using next generation switching equipment, Global NAPs (and – for that matter – Ameritech and other ILECs and CLECs) can serve wide geographic areas from a single switch. If Global NAPs is required to confine its advanced technologies and service offerings within obsolete network architectures and outmoded calling area definitions, Global NAPs will not be able to make economic use of its technologies or expertise.

CLECs, of course, must serve as wide an area as possible from a single switch to obtain the economies of scope and scale necessary to sustain their investment in these new technologies. Because of the greater capabilities of next generation facilities, CLECs can implement network architectures that are far more efficient than networks built ten or even five years ago. Accordingly, these technological advances allow CLECs to offer more services at lower costs. Scott Lundquist is prepared to discuss the impact of technological change on carriers in greater detail.

This is no different than the large calling scopes that are being offered by the wireless CMRS carriers. Using new network architecture, the wireless carriers are offering numerous calling plan options to their customers. There is no legal or technical reason that wireline carriers should not be afforded the same opportunity to provide customers with additional choices and not be bound by the system architecture and calling scopes of the ILEC.

It is also true that capital markets evaluating the potential of new technologies and ideas will similarly discount CLEC business plans constrained by these outmoded and artificial regulatory constraints. CLECs, therefore, will have less incentive to risk capital, technology and experience in markets where they cannot leverage their expertise and knowledge to a competitive advantage.

V. THE FLEXIBLE USE OF NXX CODES ALLOWS CARRIERS TO OFFER COMPETITIVE BENEFITS TO ILLINOIS'S CONSUMERS

Q. Please describe how the flexible use of NXX codes allows carriers to offer competitive benefits to Illinois consumers.

A. Allowing competitors to use NXX codes without tying such codes to specific geographic areas encourages statewide number portability, allows transparent statewide customer service from multi-branch business locations, encourages development of new service offerings and exerts downward pricing pressure on these and existing services.

Q. Describe this issue.

A. This issue relates to how one should determine the jurisdiction of a call when the receiving or called party is located physically outside of the calling area of the exchange to which that customer is assigned a number. It is Global NAPs' position that the jurisdiction of a call should be determined by the NPA-NXX of the calling and called numbers. This is technically feasible and happens as a matter of course with wireless carriers, for example.

Ameritech, however, asserts that when a Ameritech customer dials a number assigned to an Global NAPs assigned NPA-NXX in the customer's own legacy Ameritech rate center, and Global NAPs picks up that call in the Ameritech rate center and routes that call to the Global NAPs customer who happens to be located in a different legacy Ameritech rate center, the call should be treated as a toll call and Global NAPs should pay Ameritech originating access charges. Since it is Global NAPs' position that traffic should be rated based on the NPA-NXX assigned to the customer without regard to the customer's physical location, the call described above which is to a number in the customer's own legacy rate center, would be a local call.

Q. What is the basis for Ameritech's position?

A. Ameritech claims that such calls should be treated as toll calls because under *its* tariff such calls would be toll calls, and because, in the absence of Global NAPs's network, Ameritech would collect toll revenues if it handled the call, or originating access charges if another carrier handled the call. Therefore, Ameritech asserts that such calls are interexchange, not "local" calls and therefore are subject to originating access charges and are not subject to local reciprocal compensation.

Q Does Ameritech's proposal require Global NAPs to mirror Ameritech's local calling areas?

A. In an indirect way it has that effect. Obviously, Global NAPs is free to develop whatever local calling areas it chooses for its customers. However, as Scott Lundquist explains in more detail, Ameritech's proposal exerts economic pressure on Global NAPs to conform to Ameritech's local calling area by imposing a financial penalty on Global NAPs when it offers a service that does not mirror Ameritech's legacy local calling areas.

Q. What is wrong with requiring CLEC's to mirror Ameritech's local calling areas?

A. Over the past century, as modern electronic switches replaced cord switchboards and mechanical switching, the cost of transport decreased, and local calling areas have generally evolved to encompass larger geographic areas. Global NAPs takes this development even further. The broad geographic coverage of Global NAPs's local switches simply does not correspond to Ameritech's network architecture and legacy local calling areas. For that to occur, Global NAPs would have to deploy a Ameritech look-alike network, and that would be highly inefficient for Global NAPs. Ameritech's legacy local calling areas are an artifact of a monopoly era and Ameritech's network architecture. Implementing decisions that promote the adoption of legacy local calling areas on emerging competitors limits the flexibility of the CLEC to leverage its efficient network design for the benefit of consumers.

Global NAPs is asking the Commission not to restrict competition by limiting customers' choices based on legacy local calling areas, but rather allow technology, network efficiencies and market forces to determine what and how services should be offered in Illinois.

Q. Please describe foreign exchange ("FX") service and how it is related to this issue.

A. Traditional FX service, which is offered by Ameritech, involves the provision of local dial tone to a customer from a remote local switch; that is, a switch other than the switch from which the customer would ordinarily receive local dial tone. Ameritech offers FX service as an ***exchange service*** in its tariff. When a Ameritech customer dials a number assigned to the customer's own legacy rate center and Ameritech routes that call to a Ameritech [FX] customer who happens to be located in a different legacy Ameritech rate center, Ameritech treats this call as a local call, not as a toll call. That is, the Ameritech end user that originated the call pays Ameritech local charges for that call.

An FX arrangement simply allows a customer to be assigned a telephone number and to receive calls as if he or she was located in a given exchange, regardless of the physical location of the customer. In the Ameritech network, this is accomplished via the provision of remote dial tone – that is dial tone from the foreign switch (*i.e.,* in a distant or foreign rate center) connected to the native serving wire center (*i.e.,* in the home rate center) via an interoffice private line facility. The FX customer pays Ameritech the cost of that interexchange transport.

Q. Does Global NAPs also provide an FX remote dial tone service?

A. No. As I will explain below, because of the differences in network architecture, it would not make sense for Global NAPs to provide a remote dial tone service. However, Global NAPs does offer its customers an FX-like local service that provides its customers with similar benefits. This local exchange service provides Global NAPs's customers with the ability to have a local telephone number in a location that is different from the customer's actual location. The service is not an FX arrangement in the traditional sense because Global NAPs's switch (wire center) often encompasses both the areas served by the originating and the area of the terminating NPA-NXX codes. Calls between such NPA-NXX codes are completed within the Global NAPs switch. Because such calls are intra-switch calls, Global NAPs does not require private line arrangements such as those used by Ameritech to connect its two separate wire centers, the one serving the customer and the one serving the NPA-NXX.

Q. What are the characteristics of Global NAPs FX-like service?

A. Global NAPs, unlike Ameritech, offers this local service option at no additional charge to its end users. This offering is attractive to local telephone customers with a high-inbound traffic requirement that is originated over a broad geographic area. Such customers may include a taxi dispatch service, an answering service, a radio station talk show, a help desk service, an ISP, or numerous other businesses with similar telecommunications needs. Global NAPs sees its service offering as a way to differentiate itself from Ameritech and to take advantage of the efficiency of its different network architecture. Thus, Global NAPs is able to offer local telephone customers a service advantage that Ameritech has thus far chosen not to match.

Q. Please explain in more detail how the differences in network architecture enable Global NAPs to provide this FX-like service in a more efficient manner.

A. There are fundamental differences between the network architecture deployed by Global NAPs and the legacy network architecture deployed by Ameritech. Ameritech's network is comprised of numerous local switches, each of which provides dial tone to customers located within the wire center served by the switch. Ameritech connects these local switches with tandem switches until there is a sufficient volume of traffic to justify establishing direct connections between the local switches. Comparatively, Global NAPs provides dial tone with very high capacity multi-functional switches.

Because of Global NAPs's architecture and developments in transport technology such as deployment of fiber, differences in transport distance are largely immaterial to Global NAPs's costs of providing local service. The costs to serve a customer close to Global NAPs's switch are not materially different than the costs to serve a more distant customer. Consequently, Global NAPs's network architecture allows it to serve local telephone customers at relatively greater distances at comparable costs. Since traffic terminated to the NPA-NXX chosen by a customer has no appreciable impact on cost relative to the geographic location of the customer, Global NAPs's existing local rates need not reflect any additional charges related to the distance between the end user is from his/her NPA/NXX.

Traditional FX service, on the other hand, is comprised of: (1) local dial tone to a customer from a remote end office switch (*i.e.,* the foreign switch) - a switch other than that from which that customer would ordinarily receive local dial tone (*i.e.,* the native switch); (2) a dedicated interoffice private line facility between the customer's serving wire center and the foreign switch; and (3) a local loop. The customer of a traditional FX service would pay Ameritech for the dial-tone line and monthly fixed and per-mile charges for the dedicated interexchange facility.

Global NAPs's FX-like local service offering is comprised of a single switch (a single wire center) and the local loop. There is no dedicated interoffice facility component. The key difference then is that Ameritech's traditional FX service has a dedicated interoffice transport facility and a local portion (the dial-tone line), whereas Global NAPs's NPA-NXX offering has only a local portion.

This distinction is important since the definition of traditional FX service is the provision of dial tone from a foreign switch or exchange. In Global NAPs's network, dial tone is provided by the customer's native switch, not a foreign switch. Since Global NAPs's switch will serve a much broader geographic area than Ameritech's individual local switches, Global NAPs is able to terminate traffic to customers within different Ameritech legacy rate centers at comparable cost. Hence, from the perspective of Global NAPs's network, there is no difference in function or cost to terminate a call in one rate center versus another, and thus Global NAPs can offer this service at no additional charge to the customer as part of its local service offering. This is an important distinction because the Telecommunications Act defines telephone toll service as follows:

> The term "telephone toll service" means telephone service between stations in different exchange areas for which there is made a separate charge not included in contracts with subscribers for exchange service.[1]

Thus, despite Ameritech's assertions to the contrary, Global NAPs's FX-like service is not a toll service, as defined by the Act.

Q. Are there any other problems with Ameritech's proposal?

A. Yes. Ameritech's proposal would create significant technical and billing challenges. In order to implement Ameritech's proposal that Global NAPs's FX-like traffic be treated as toll traffic rather than as local exchange traffic, the Commission would have to order that this traffic be segregated and somehow tracked separately from other telecommunications traffic. This would be an extremely costly endeavor with no public benefit.

Moreover, the industry would have to change the rules on how intercarrier traffic has been rated up to now. The current industry standard method for rating and billing calls between carriers is to measure the distance between the V & H coordinates associated with the NPA-NXX of the originating and terminating end users. This ability is built into all of the carriers' systems and the details are fleshed out in interconnection

[1] 47 U.S.C. §153(48).

agreements. Ameritech's proposal would change all of this and require carriers to somehow segregate the Virtual FX calls and rate them separately. Virtual FX traffic is not separately identified and tracked by Global NAPs's affiliates in any of its existing interconnection arrangements or, to my knowledge, by any other CLEC at this point.

Q. How is this issue affected by the FCC's recent Order on ISP-bound traffic and the intercarrier compensation NPRM?

A. My understanding from discussions with counsel is that the FCC has already established some interim reciprocal compensation rules for ISP-bound and all other traffic.[2] All traffic including this FX-type traffic is currently subject to those rules. However, until the time that the FCC adopts a new comprehensive intercarrier compensation regime and corresponding rules, as a result of its *Intercarrier Compensation NPRM*, the existing calling-party's-network-pays ("CPNP") regime remains in place.

Q. Would Ameritech have to bear additional costs if Global NAPs's position were adopted?

A. No, not at all. Global NAPs is not asking Ameritech to build anything to enable Global NAPs to provide its FX-like service. Moreover, Ameritech's costs to deliver a call to Global NAPs do not vary depending on whether the call is destined to a customer in the calling party's native rate center or a customer in a foreign rate center. The cost to Ameritech is exactly the same. This is true because Ameritech delivers all traffic bound to the same Global NAPs NPA-NXX to the same Global NAPs point of interconnection ("POI") where traffic is exchanged with Ameritech's network.

In other words, Global NAPs specifies a single POI for an NPA-NXX, regardless of the physical location of the Global NAPs terminating customer. Since the POI to which Ameritech delivers traffic is the same, Ameritech's network costs to deliver traffic to that POI are necessarily the same. Where there are any additional costs between Global NAPs's switch and the customer to complete such traffic, such costs are borne by Global NAPs. Thus, from the standpoint of reciprocal compensation, Ameritech should be financially indifferent as to where calls are terminated within the Global NAPs network, since the physical location of the customer has no effect on the rates Ameritech pays for transport and termination of the calls.

[2] *In the Matter of Intercarrier Compensation for ISP Bound Traffic,* CC Docket No. 96-98, Order on Remand and Report and Order, FCC 01-131 (rel. April 27,2001).

Q. If Ameritech should be financially indifferent on this issue, why do you think it is so opposed to Global NAPs's position?

A. I stated that Ameritech should be financially indifferent as to where local calls are terminated within Global NAPs's network, since the physical location of the customer has no effect on the reciprocal compensation rates Ameritech pays for transport and termination of the calls. Thus, Ameritech's costs are not affected. One cannot say the same thing for their revenues, however, because, Ameritech could be losing toll or access revenues on such calls.

Q. Why should the ICC look favorably upon Global NAPs's proposal?

A. One of the clear benefits of opening the local market to competition is the incentive this action gives the participants in the market to deploy the most advanced, efficient facilities possible. It also imposes a strong incentive on the incumbent to "catch-up" by installing its own more efficient network, or to at least offer and price services as if it had deployed that network. Deployment of different network architectures is a major way that new entrants differentiate themselves and their service offerings from the incumbent. Finally, although Scott Lundquist addresses the economic benefits of Global NAPs' various proposals in his testimony, it is clear that adoption of Global NAPs' position allows for competitive pressures to be exerted on the price of calls, which Ameritech would otherwise saddle with access charges. This situation results in less expensive calls for the consumer and spurs demand for the product as well.

VI. INTERCARRIER COMPENSATION

Q. What is Global NAPs' position concerning intercarrier compensation?

A. As far as we know, there are no factual disputes regarding intercarrier compensation. Therefore, I need not describe further the positions taken in the Arbitration Petition and related pleadings. At the hearing, Scott Lundquist and I will respond to questions posed concerning the policy and business implications of intercarrier compensation on Global NAPs.

VII. DARK FIBER

Q. Would you please summarize Global NAPs' position concerning access to Ameritech's Dark Fiber.

A. Ameritech is obligated to make unused transmission media, such as dark fiber cable, available to Global NAPs in the same manner as it is able to utilize such fiber itself, on nondiscriminatory terms and conditions, at technically feasible points—including at the regenerator or optical amplifier equipment and at splice points of Global NAPs' choosing. Access should not be limited, as Ameritech maintains, only to a few prescribed points on Ameritech' network. CLECs should be able to have access to and reserve use of available dark fiber consistent with reasonable business practices. Ameritech should be required to provide Global NAPs with dark fiber that conforms to industry standards for transmission quality, just as it does with UNE loops, and for similar reasoning.

Q. How does Ameritech propose to meet that obligation?

A. Ameritech proposes to meet its obligation by imposing restrictive limitations on the types of fiber to which it is willing to provide access and by limiting even that access to only certain points.

Q. Does Ameritech's obligation apply to only a particular type or technology of transmission conductor (*e.g.,* fiber)?

A. No. The *UNE Remand Order*,[3] which clarified that ILEC dark fiber must be unbundled to competitors, does not limit an ILEC's unbundling obligation to only a particular transmission conductor type/technology. In fact, the FCC has made it abundantly clear that CLECs are entitled to obtain facilities in any manner in which it is technically feasible and provide these efficiencies to the market. In contrast, Ameritech Illinois' definition[4] is designed to avoid its obligation to provide, as a transport UNE, any unused transmission medium that is installed. The Commission specifically found that the distinct aspect of dark fiber that qualifies it as a UNE is that it is "unused transport capacity"[5]and as such, it is "similar to the unused capacity of other network elements."[6]

Fiber is not the only type of "unused transport capacity" that is used in the provision of a telecommunications service, and the fact that the FCC did not expressly mention other types of unused transmission media, such as, for example, coaxial cable, does not affect their status as unused capacity.[7] The transmission medium is not the governing factor. The relevant standard that the Act itself sets, as identified by the FCC, is whether Ameritech has "unused transport capacity". If so, this capacity is defined as being part of the Local Transport UNE. To the extent, then, that Ameritech has deployed fiber, coaxial cable or other transmission media in its network for purposes of providing "transport capacity," it should appropriately be included in the interconnection agreement.

Q. Should Ameritech be permitted to limit Global NAPs' access to dark fiber while at the same time assuring its own capacity between the same points?

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[3] *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Third Report and Order*, 15 FCC Rcd 3696 (1999) ("*UNE Remand Order*").

[4] Interconnection Agreement Under Sections 251 and 252 of the Telecommunications Act o f 1996, Appendix UNE, §§ 13.1 (Dec. 1, 2000 version) ("Template Agreement").

[5] *UNE Remand Order* at ¶ 326.

[6] *Id.* at ¶ 325.

[7] Indeed, the FCC implicitly acknowledged that it could not enumerate all such methods of transport, when it modified its transport rules to "clarify that incumbent LEC[s] must unbundled DS1 through OC192 dedicated transport offerings *and such higher capacities as evolve over time…to ensure that the definition … will apply to new, as well as current technologies*. *Id*. at ¶ 323.

A. No. Ameritech in the Template Agreement limits dark fiber that Global NAPs may obtain as a UNE to "spare" fibers.[8] Such fibers exclude "maintenance fibers" and fibers set aside and documented for Ameritech's forecasted growth.[9] Of the fibers that remain, only 25% of the facilities in the segment requested may be ordered.[10] This is patently discriminatory; as Ameritech proposes to reserve dark fiber for its future growth, but prohibits CLECs from doing precisely the same thing. Non-discrimination mandates that Ameritech afford CLECs the same or equivalent opportunities to reserve fiber for maintenance spares, near-term customer service requirements, and for future growth.

The *UNE Remand Order* makes clear that the technological ability to readily increase the capacity of dark fiber should eliminate any need for ILECs to reserve capacity to themselves. In dismissing ILEC claims that their inability to reserve unused transmission media would jeopardize their obligations as carrier of last resort, the Commission stated:

> We note here … that GTE [Verizon] raises concerns that incumbents, because of their carrier-of-last-resort obligations, have a special need for fiber reserves. As we explain in greater detail below, we find these concerns exaggerated, because the capacity of fiber can be increased many fold simply by increasing the power of the [Dense Wave Division Multiplexing] electronics that light it. *We find, therefore, that a shortage of fiber capacity caused by unbundling is highly unlikely.* In addition, GTE [Verizon] and the Telecommunications Industry Association argue that requiring incumbent LECs to unbundle fiber will reduce their incentive to build fiber loops in the first place. We remain skeptical that this is the case, because incumbents face loop unbundling obligations no matter which technology they deploy.[11]

Q. Should Ameritech be allowed to reclaim dark fiber not utilized by Global NAPs within a specific period or reclaim assigned fiber for its own anticipated use?

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[8] *Template Agreement*, Appendix UNE, §§ 13.1.1 (Dec. 1, 2000 version) ("Template Agreement").

[9] *Id*. at §§ 13.4.1, 13.5.1.1, 13.5.1.3.

[10] *Id.* at § 13.4.1.

[11] *UNE Remand Order* at ¶¶ 198-99.

A. No. Ameritech in the Template Agreement reserves the right to "revoke CLEC's access to the dark fiber" should Global NAPs not use fiber strands subscribed to within the 12 month period following which Ameritech provides the fibers.[12] Likewise, Ameritech retains the right to reclaim assigned dark fiber, even if in use, upon demonstration by Ameritech that the dark fiber is necessary to meet Ameritech Illinois' needs within the 12 months following the revocation and provisioning of an alternative facility for Global NAPs with the same bandwidth Global NAPs was using prior to the retrieval. For the reasons discussed above, these practices favor Ameritech over competitors, would defeat the purpose of the FCC's *UNE Remand Order*, and should be prohibited.

Q. If the Commission decides that Ameritech may deny requests for unused transmission media, should the Commission make clear that Ameritech may not refuse a request if it is technically feasible to upgrade the electronics?

A. Yes. If the only thing stopping Ameritech from providing the unused transmission media to Global NAPs is the electronics, Ameritech should be required to upgrade the electronics and render the unused transmission media usable for Global NAPs. Certainly, if Ameritech needed that transmission media, Ameritech would upgrade the electronics for itself. As a result, Ameritech should be required to do so for Global NAPs as well. If the Commission permits Ameritech to deny Global NAPs' requests for unused transmission media, the Commission should make it clear that Ameritech may not refuse a request if it is technically feasible to upgrade the electronics and, thus, render the unused transmission media available.

Q. Should Ameritech be required to add sufficient unused transmission media to meet the projected requirements of Global NAPs when Ameritech installs new transmission for itself?

A. Yes. From time to time, in building its network, Ameritech installs transmission media for future uses and/or for administrative uses. Because Ameritech builds to meet its own forecasted needs for unused transmission media, Ameritech should be required to do the same for Global NAPs. When Ameritech installs such new transmission media or adds to existing transmission media, Ameritech must add sufficient unused transmission media to meet the projected requirements of Global NAPs. Global NAPs will provide reasonable and timely forecasts to enable Ameritech to install the amount of media needed.

Q. Should Ameritech be permitted to limit access to unused transmission media, (such as dark fiber), to a limited number of locations on Ameritech's Network?

[12] Appendix UNE, ¶ 13.7.1.

A. No. Ameritech proposes to limit Global NAPs' access to dark fiber to a limited number of points on Ameritech's network and to allow access only by certain prescribed methods. Thus interoffice dark fiber must terminate on a fiber distribution frame, or equivalent, in the Ameritech Central Office where Global NAPs is collocated.[13] Likewise, for loop and sub-loop dark fiber, Global NAPs would be required to collocate at the Ameritech Central Office, end user customer premises through a network demarcation point or remote terminal/CEV/Hut through a fiber distribution frame, depending on the nature of the sub-loop dark fiber ordered.[14] There is no technical or legal basis for Ameritech's restrictions, and Global NAPS should, consistent with the Act and the *UNE Remand Order*, be permitted access to dark fiber at *any* technically feasible point, as its proposed Agreement provides. Further, under the Act, Ameritech should bear the burden to demonstrate that a requested point of access for dark fiber is *not* technically feasible, rather than upon Global NAPs to show that it is.

Q. Is Ameritech's requirement that at least one end of a dark fiber span must be located at a collocation cage reasonable?

A. No. The requirement of a collocation arrangement at a minimum of one end of the dark fiber is technically unnecessary and is otherwise unreasonable. It would competition from a practical point of view by imposing an unnecessary cost and delay on Global NAPs where Global NAPs has no other reason for a collocation arrangement. Such a requirement is anti-competitive because it forces CLECs unnecessarily to use valuable and limited collocation space in the central office that may foreclose an opportunity for another CLEC that actually needs the collocation space to operate. Moreover, Ameritech already has recognized there is no need for such mandatory collocation as evidenced by its implementation of "virtual collocation", (by which Ameritech splices a CLEC fiber cable to a Ameritech fiber cable in the central office vault, central office manhole, or other nearby mid-span meet, to create fiber continuity into the central office without requiring a collocation cage in the central office). Global NAPs should be permitted to access unused transmission media at splice points.

Verizon asserted a substantially similar position about dark fiber termination in a collocation arrangement in a proceeding before the Massachusetts Department of Telecommunications and Energy. Its justification was that the collocation requirement was critical to its ability to repair and restore damaged fiber optic facilities within its network. The Massachusetts DTE disagreed, siding with Global NAPs,

[13] Template Agreement, Appendix UNE, § 13.2.1.

[14] *Id.* at §§ 13.3.3-13.3.4.

which asserted that there was no technical justification given the feasibility of connecting at existing splice points.[15]

Q. Has Global NAPs proposed a reasonable process to obtain access to dark fiber?

A. Yes. Global NAPs has proposed that it be provided reasonable access to Ameritech's pole and conduit maps, records, or other records, including databases, that would contain the necessary dark fiber information, or that, within specific time periods for responses, Global NAPs could submit an inquiry to Ameritech. The inquiry would set forth the end points where dark fiber is requested and would be required to be responded to in a reasonable time frame, depending on the review necessary. The response would set forth the availability of dark fiber across the designated route and not simply the availability (or lack thereof) from point A to point B, (*e.g.*, if fiber is available from A to within 100 feet of point B, that information should be conveyed to the CLEC as it would be to Ameritech).

Global NAPs, however, should not be saddled with a cumbersome process. Ameritech should be obligated to provide Global NAPs with either access to the same back end system, or access to an interface with the same information that Ameritech provides to itself, (irrespective of whether the process is manual or electronic). For example, Global NAPs may request dark fiber on a ring from a point at 12 0'clock to a point 9 o'clock and receive a negative response from Ameritech as to whether dark fiber is not available for that route. However, it might be the case that dark fiber is available from points 12 o'clock to 3 o'clock to 6 o'clock to 9 o'clock. Such preorder information on alternate routes or configurations should be available on a non-discriminatory basis.

Q. Should Ameritech be permitted to require Global NAPs to make facility inquiries to obtain access to dark fiber?

A. No. Ameritech in Section 13.6.2 of the Template Agreement requires Global NAPs to submit a dark fiber facility inquiry as a precondition to ordering dark fiber. Ameritech should not be permitted to require burdensome survey procedures with no guarantee of facilities availability or quality. Ameritech certainly

[15] *See* Order, *Consolidated Petitions of New England Telephone and Telegraph Company d/b/a Bell Atlantic-Massachusetts, Teleport Communications Group, Inc., Brooks Fiber Communications of Massachusetts, Inc., GLOBAL NAPS Communications of New England, Inc., MCI Telecommunications Company, and Ameritech Communications Company, L.P., pursuant to Section 252(b) of the Telecommunications Act of 1996, for arbitration of interconnection agreements between Bell Atlantic-Massachusetts and the aforementioned companies*, Massachusetts Department of Telecommunications and Energy, Case No. 96-73/74, 96-75, 96-80/81, 96-83, 96-94-Phase 4-N, December 13, 1999.

has records of its fiber plant locations. It should be required to share those records with Global NAPs such that Global NAPs could determine the location of unused transmission media and obtain access without the need for a burdensome field survey. If, instead, Global NAPs is required to request a facility inquiry every time it wants to request unused transmission media, Global NAPs would be needlessly duplicating work already represented by Ameritech's existing records. Moreover, such a requirement would be inconsistent with the Act's obligation of non-discriminatory access and inconsistent with the FCC's determinations in the *UNE Remand Order*.

Q. Should Ameritech be required to commit to reasonable intervals for the completion of requested surveys and to the turn-up of fiber?

A. Yes. Ameritech should be required to commit to reasonable intervals for the completion of dark fiber facility inquiries (if the Commission allows imposition of this procedure) and turn-up of fiber. Ameritech denotes Section 13.6 of its UNE Appendix as "Quantities and Time Frames for ordering Dark Fiber" yet fails to provide any numerical guidelines for such orders. While it is reasonable to expect that Ameritech should be afforded some provisioning flexibility in the face of multiple requests for access to dark fiber, it is unreasonable for it to seek to avoid any commitments at all.

Moreover, Ameritech should not be allowed to require extended (*e.g.*, 30-day) intervals to turn up dark fiber once ordered by a CLEC. Once all necessary predicates for access to a fiber sheath are accomplished, imposing another 30-day period to turn up the requested fiber is unnecessary. Recognizing that there may be a few additional steps to be taken, Global NAPs would not object to a more reasonable interval (such as 20 days).

Q. What Other Aspects of Ameritech's Proposal are Problematic?

A. Another hidden disparity in the manner ILECs treat dark fiber provisioned to competitors in comparison with their own fiber is testing and conditioning of the dark fiber. Ameritech should be required to test and condition dark fiber turned over to Global NAPs to meet the same specifications that it uses (i.e. loss per mile, loss per splice) in the same manner it does when it activates fiber for its own use, rather than delay this process until Global NAPs' requests it, provide fiber at a lower standard, or fail to test entirely.

The obstructive practices described in the preceding paragraphs should be expressly prohibited by the Commission.

VIII. CONCLUSION

Q. Does this complete your testimony?

A. Yes.

AFFIRMATION

STATE OF NEW YORK)
) ss.
COUNTY OF Suffolk)

ROBERT J. FOX, being first duly sworn, deposes and says:

That he is the person identified in the Direct Testimony being filed herewith in Docket No. 01-0786; that such testimony was prepared by or under his direction; that the answers and information set forth therein are true to the best of his own knowledge and belief; and that if asked the questions set forth therein, his answers thereto would, under oath, be the same.

D=NY v/s 07/04.

Robert J. Fox

SUBSCRIBED AND SWORN to before me this 26th day of December, 2001.

Notary Public

KORIN L. BURNS
NOTARY PUBLIC, STATE OF NEW YORK
NO. 4905543, SUFFOLK COUNTY
TERM EXPIRES SEPT. 14, 2006

My Commission Expires:

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing document was served by placing same in a sealed envelope addressed:

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and by depositing same in the United States mail in Springfield, Illinois, on the 28th day of December, 2001, with postage fully prepaid.